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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,141	01/16/2002	Tetsuo Yamaguchi	2870-0177P	3642

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EXAMINER

CHEA, THORL

ART UNIT PAPER NUMBER

1752

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,141

Applicant(s)

YAMAGUCHI, TETSUO

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed fails to provide support for the combination of "(a)t least one compound satisfying both (iv) and at least one of (i) to (iii)" presented in the claimed invention. The specification as a whole discloses that each of the compound (i) to (iv) has similar functions as nucleating agent. There fore the new combination of the nucleating agent was not disclosed at the time was made, and therefore this set of combination is a new concept and raises the issue of new matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "at least one compound satisfying both (iv) and at least one of (i) to (iii) since the (iv) contains three compound of formula (1), (2) and (3), and it is unclear as to both of which compounds are referred to. Also, it is unclear whether the claiming is related to the

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combination of nucleating agent of the compound in set (iv) with at least one of the compound of (i) to (iii), or the compound in group (iv) that has characteristic in group (i) to (iii).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al (Ito) in view of JP11-149136 (JP'146) and Adin et al (Adin).

Ito a photothermographic material containing non-photosensitive silver halide, photosensitive silver halide, reducing agent for silver ions and binder and the compound of formula (1) to (3) claimed in the present claimed invention, and the amount thereof is within 1×10^{-6} mol to 1 mol/mol of silver halide. Note to the compound of formula (1) to (3) in column 18 and the amount thereof in column 33, lines 22-25.

The JP'136 discloses a heat-developable material containing non-photosensitive silver halide, photosensitive silver halide, reducing agent for silver ions and binder and the compound exemplified in the present application disclosure which is within the scope of formula (I) claimed in the present invention, and the amount thereof is from 1×10^{-6} mol to 1 mole/mol of silver halide. See the compound in column 1 (or Its English equivalent, US Patent No. 6,177,240, in columns 7-24; and in column 26, lines 37-40). This compound is within the scope of formula (I), which contains nitrogen containing heterocyclic compound, and the functional groups such as $-CO_2M$ which is within the scope of A-B of the formula (I). The compound provide

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photothermographic material high in Dmax and sensitivity, enhanced enough in contrast, small in photographic performance due to fluctuation of development conditions and superior in effect of restraining dependence on development condition.

Adin discloses a spectrally sensitize within the scope of formula (I) of the claimed invention, and the amount thereof is from 1×10^{-8} to 2×10^{-3} mol per mol of silver in the emulsion layer. The compound is capable of enhancing both intrinsic sensitivity and the spectrally sensitivity of the silver halide emulsion, and the activity of the compound can be easily varied with substituents to control their speed and fog effects in a manner appropriate to the particular silver halide in which they are used. Note to the compound in column 4, especially lines 26-38 and 55-65, and the amount thereof in column 60, lines 5-18.

The teaching in Ito discloses a photothermographic material containing compound of formula (1) to (3) and the compound inherently meets the conditions (i) to (iii) presented in the claimed invention. The compound in (iv), formula (1) to (3) has been known as nucleating agent, and the compound which meet criteria (i) to (iii) has been known as contrast enhancing agent such as hydrazine compound exemplified in Ito in column 37-80. See also the nucleating agent in column 23-32.

Ito fails to disclose the compound of formula (I) which however has been known and taught in JP'136 and Adin. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the compound taught in JP'136 to provide the photothermographic material with high in Dmax and sensitivity, enhanced enough in contrast, small in photographic performance due to fluctuation of development conditions and superior in effect of restraining dependence on development condition, or the compound taught in Adin in

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the material taught in Ito enhance both intrinsic sensitivity and the spectrally sensitivity of the silver halide emulsion to provide the invention as claimed.

Response to Arguments

7. Applicant's arguments filed January 30, 2004 have been fully considered but they are not persuasive for the reason set forth in the rejection above and the response to the applicants' argument set forth in the previous office action. The Declaration under 37 CFR 1.132 on January 30, 2004 is insufficient to overcome the rejection under 35 USC 103(a) set forth in the office action of record.

The declaration is not commensurate with the scope of the claimed invention. The scope of the invention as claimed encompasses a combination of nucleating agent of group (iv) in combination with the compounds that satisfy the condition in (i) to (iii) while the Declaration shows only the use of the compound in group (iv). The claimed invention encompasses a multitude of combination of the nucleating agents having wide range of increased of developed silver grain density and covering power that have been untested.

The samples were not made accordingly to Ito et al while the scope of the claimed invention encompasses the scope of the material taught in the scope of preferred embodiment of Ito et al.

The samples 1-18, I-19 contains compound 54a of Ito'084. This compound has developed silver grain density and covering power within that of (ii) and (iii) claimed in the present claimed invention and these compound encompass the scope of the compound claimed in the present claimed invention, but used as comparative compound. Therefore, the results present in the Declaration are confusing as to which the compound the applicants considered as their invention since the scope of the claimed invention encompass this hydrazine compound.

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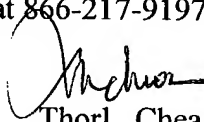
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571)272-1328. The examiner can normally be reached on M-F (9:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on (571)272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tchea *tlh*
March 2, 2004


Thorl Chea
Primary Examiner
Art Unit 1752